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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|-------------------------|------------------|
| 10/090,498 | 03/04/2002 | Ariela Zeira | I-2-0152.3US | 8211 |
| 24374 | 7590 | 04/22/2004 | EXAMINER | |
| VOLPE AND KOENIG, P.C. DEPT. ICC UNITED PLAZA, SUITE 1600 30 SOUTH 17TH STREET PHILADELPHIA, PA 19103 | | | JAIN, RAJ K | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2664 | |
| | | | DATE MAILED: 04/22/2004 | |

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/090,498

Applicant(s)

ZEIRA ET AL.

Examiner

Raj Jain

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 March 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 April 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

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DETAILED ACTION

Specification

The disclosure is objected to because of the following informalities: the abstract is of undue length.

Appropriate correction is required.

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Claim Objections

Claim 1 objected to because of the following informalities: the word "code" in line 6 should be plural. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this

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subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2, 4, 5, 7 and 8 are rejected under 35 U.S.C. 102(e) as being anticipated by (U.S. Patent 6,339,612 B1) issued to Stewart et al., hereinafter as Stewart.

Claims 1 and 7:

Regarding claim(s) 1 and 7, Stewart discloses a method of using a user equipment (UE) in a wireless time division duplex communication system using code division multiple access (abstract, fig 3), where the system communicates using communication bursts (col 1 L58), each communication burst having a unique channelization code (*col 2 L15-30, Stewart discloses use of the "same code" being transmitted and recovered by multiple users within a sector or a cell, which is same as channelization code described by applicant paragraphs 0008 and 0009*), and a midamble code which is uniquely related to the channelization code, each such midamble code being uniquely related to one or more channelization code, the method comprising:

- receiving communication bursts by the UE (abstract, fig 3);
- detecting each midamble code in a received communication burst (col 3 L 30-35, col 4 L52);
- determining the channelization codes related to each detected midamble based on a mapping of midamble codes to related channelization codes (col 3 L41-56, col 4 L42-60; detecting channelization codes in the received communication burst from among the determined channelization codes (abstract, col 3 L29-40); and recovering data from the received communication burst based on in part the detected channelization codes (*claim*

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1, which includes a decoder for outputting required symbol information for each individual unit transmission).

Claims 2 and 5:

Regarding claim(s) 2 and 5, Stewart discloses channelization code detection comprising match filtering the received burst for each determined channelization code to produce a filtered signal corresponding to each determined channelization code, measuring the power of each filtered signal produced and comparing the power measurements (cols 3-4).

Claims 4 and 8:

Regarding claim(s) 4 and 8, Stewart discloses the method of claim 1 further comprising using received midambles of received bursts for producing channel estimations of the received bursts wherein the channel estimation of a received burst is used for the midamble detection, the channelization code detection and the data recovery (col 1 L55-67).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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Claims 3 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over (U.S. Patent 6,339,612 B1) issued to Stewart et al., hereinafter as Stewart. as applied to claim 1 above, and further in view of (U.S. Patent 6,078,607) issued to Monroe et al., hereinafter as Monroe.

Stewart discloses a joint detection of data signals occurring in a code division, multiple access (CDMA) communication system. A digital signal processor is disclosed which extracts a midamble portion of transmitted signal vectors and generates an estimate of the channel response corresponding to each user-antenna pair using a channel estimator. Stewart further discloses channel estimation provided by midamble for power measurements (col 3 L11-40).

Stewart fails to disclose the use of predetermined thresholds to determine channelization code.

Monroe discloses the use of predetermined thresholds to determine channelization code (col 3 L30-35).

The use of predetermined thresholds helps to provide for rapid synchronization and tracking in a spread spectrum communications system of individual users/units.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to include predetermined threshold levels within Stewarts channel power measurement scheme allowing for rapid synchronization and tracking of individual users/units.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raj Jain whose telephone number is 703-305-5652. The examiner can normally be reached on M-F.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on 703-305-4366. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9306 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4700.

RJ

April 13, 2004

A handwritten signature in black ink, appearing to be 'W. Chin', with a long horizontal stroke extending to the right.

WELLINGTON CHIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600